<div align="center">**REMARKS/ARGUMENTS**</div>

The Examiner is thanked for the review of the application.

Claims 1-4, and 6-11 remain in this application. No new claims have been added. Claims 1 and 3 have been amended. No new matter has been added.

In the Office Action dated May 9, 2006, the Examiner rejected Claims 1 and 6 under 35 U.S.C. 103(a) as being unpatentable over Ouimet et al. (US 6,078,893), and further in view of Garg (US 6,044,357).

Regarding Claim 1, the Examiner has stated that Ouimet et al. discloses: "wherein said demand group sales model provides a single model for modeling sales of all of the products in each said demand group, (Col. 6, lines 12-15, shows more complicated models where a demand model which the is a nonlinear, cross-correlation between the variables of different items, which represent products); Creating, using the computer system, said product sales model by combining said demand group sales model and said internal market share model, wherein said product sales model models sales for individual products, (Col. 6, lines 63-64, where the user selects a figure-of-merit function to be used to tune the demand model to the sales history, thereby creating a resulting demand model that conforms to the portions of the sales history data that shows a strong trend, and conform to the external market information when the corresponding portions of the sales history data show noise as shown in the abstract, lines 13-17, w/Col. 6, lines 12-15, shows a demand model which the is a nonlinear, cross-correlation between the variables of different items, which represent individual products)."

Claim 1 has now been amended to read, in pertinent part:

"creating, using the computer system, a plurality demand groups, wherein each demand group is a group of highly substitutable products, further wherein each demand group is a set of at least one product and at least one of the demand groups is a set of at least two products**, further wherein each said demand group is defined by a user such that each said demand group is unique to said user** ;

creating, using the computer system, a demand group sales model as a function of price wherein said demand group sales model models sales for each demand group, further wherein said demand group sales model provides a single model for modeling sales of all of the products in each said demand group;

creating, using the computer system, an internal market share model wherein said internal market share model determines the fraction of the internal sales of each demand group comprised by each product; and

creating, using the computer system, said product sales model by combining said demand group sales model and said internal market share model, wherein said product sales model models sales for individual products**, further wherein said product sales model combines said demand group sales model and said internal market share model to produce said product sales model for individual products**." (emphasis added).

Support for the amendments can be found in the specification as filed on page 60, lines 5 – 14. As amended, Claim 1 more distinctly the novel aspect of the instant invention wherein a demand group sales model is generated to model sales for each demand group. Ouimet '893, on the other hand, generates a demand model for individual products and then uses external market information to correct for noise in the product demand model. (Col 2, lines 10 – 18).

The instant invention generates a sales model for the entire demand group. A demand group is a group of highly substitutable products (or items). (Specification, page 13, lines 11-13). The sales model is then generated to model sales for the group. This provides the advantage of decreasing process time and providing a more facile modeling scheme. (See specification, page 13,

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line 21 – page 14, line 1). Ouimet '893 does not teach nor suggest creating a demand group sales model. Furthermore, Ouimet et al. does not disclose any structure which is capable of modeling sales for a group of highly substitutable products as disclosed by the instant invention. Known sales models, like the one disclosed in Ouimet et al., model individual product sales. The novel demand group sales model of the instant invention, on the other hand, models group sales.

Demand groups are defined in the specification as groups of highly substitutable products. This is different from a group of products as references as used by Ouimet et al. For example, sodas might be grouped together in a category, but a demand group would further subdivide them into demand groups such as colas (Pepsi, Coke, etc.), lemon-flavored sodas (7up, Sierra Mist), etc. Since someone preferring a cola is unlikely to change to 7up, a broad soda category as used in Ouimet et al. would not qualify as a demand group consisting of highly substitutable products. Further, these demand groups vary from customer to customer since it depends upon the assortment carried by a retailer, primary competitors of the retailer, etc. This information is input by a user (usually a business customer or retailer) and helps construct the sets of demand groups. The instant invention provides the advantage of relying solely upon internal product sales data to create the sales model.

As amended, Claim 1 also more distinctly the novel aspect of the instant invention wherein an internal market share model is created wherein said internal market share model determines the fraction of the internal sales of each demand group comprised by each product. Garg '357, on the other hand, discloses "marketing mix variables" which represent marketing strategies for each of a plurality of brands of goods. (Col. 3, lines 12 – 16). The method in Garg '357 first initializes variables representing feasible marketing strategies then, based on an integrated marketing model, estimates demand for each brand by estimating consumer demand effects by marketing, and then optimizes to find which strategy maximizes profit for each brand. (Col. 3, lines 11 – 23).

As such, a useful and unique aspect of the instant invention involves this two-step modeling process. The instant invention uses a two-step approach (utilizing two separate sets of models)

including a demand group level sales model (that models aggregate sales over the constituent products) and a market share model that determines relative shares of products within a demand group. Thus, the final product level sales model is the product of demand group sales of a particular product and the market share of the product.

In the instant invention, the market share model is the fraction of a demand group's total sales comprised by a particular product within the demand group. (Specification, page 68, lines 5-8). The instant market share model does not predict a product's share of the external market, but rather the internal analysis of a product's share of its demand group's total sales within the user's store or chain. Combined with the demand group sales model discussed above, this novel aspect of the instant invention allows one skilled in the art to calculate demand group demand as a function of price and then use internal market share to calculate a product's demand from the demand group demand. (Specification, page 115, lines 1-3).

Neither Ouimet '893, nor Garg '357 teach nor suggest the demand group sales model nor the internal market share model disclosed by the instant invention. Hence, base Claim 1, and claims 2, 6, 7, 8 and 10, which are dependent upon Claim 1, are allowable over the cited art.

In the same Office Action, the Examiner has rejected Claims 3-4, and 9 under 35 U.S.C. 103(a) as being unpatentable over Chavez et al., (US 6,684,193), and further in view of Ouimet et al. (US 6,078,893).

Regarding Claim 3, the Examiner has stated that "Chavez et al. discloses:…A coefficient estimator coupled to the imputed variable generator, and wherein imputed variables generated by the variable generator are used by the coefficient estimator to create a demand group sales model as a function of price, wherein said demand group sales model provides a single model for modeling sales of all of the products in each said demand group, an internal market share model, and a combined product sales model, wherein said product sales model models sales for individual

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products, [col. 15, lines 6-14, [shows an example of how the revenue coefficient is incorporated into modeling the value function in a manner to account for interactive effects between the refinements and the resources that comprise that particular model], w/ (Col. 6, lines 12-15, shows more complicated models where a demand model which the is a nonlinear, cross-correlation between the variables of different items, which represent individual products)".

Claim 3 has now been amended to read, in pertinent part:

"a coefficient estimator coupled to the imputed variable generator, and wherein imputed variables generated by the variable generator are used by the coefficient estimator to create a demand group sales model as a function of price, wherein said demand group sales model provides a single model for modeling sales of all of the products in each said demand group__, further wherein each said demand group is defined by a user such that each said demand group is unique to said user__, an internal market share model, and a combined product sales model wherein said product sales model models sales for individual products__, further wherein said combined product sales model combines said demand group sales model and said internal market share model to produce said product sales model for individual products__." (emphasis added).

Support for the amendments can be found in the specification as filed on page 39, lines 13 – 16; and page 60, lines 5 – 14. As discussed above with respect to Claim 1, demand groups are defined in the specification as groups of highly substitutable products. This is different from a group of products as references as used by Ouimet et al. For example, sodas might be grouped together in a category, but a demand group would further subdivide them into demand groups such as colas (Pepsi, Coke, etc.), lemon-flavored sodas (7up, Sierra Mist), etc. Since someone preferring a cola is unlikely to change to 7up, a broad soda category as used in Ouimet et al. would not qualify as a demand group consisting of highly substitutable products. Further, these demand groups vary from customer to customer since it depends upon the assortment carried by a retailer, primary competitors of the retailer, etc. This information is input by a user (usually a business customer or

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retailer) and helps construct the sets of demand groups. The instant invention provides the advantage of relying solely upon internal product sales data to create the sales model.

        With respect to the sales model, as amended, Claim 3 more distinctly the novel aspect of the instant invention wherein a <u>demand group sales model</u> is generated to model sales for <u>each demand group.</u> Chavez '193, on the other hand, generates a demand model for individual <u>products</u>. (Col. 7, lines 14 – 19). As amended, Claim 3 also more distinctly the novel aspect of the instant invention wherein <u>an internal market share model is created wherein said internal market</u> <u>share model determines the fraction of the internal sales of each demand group comprised by each</u> <u>product.</u> As discussed above, Garg '357, on the other hand, discloses "marketing mix variables" which represent marketing strategies for each of a plurality of brands of goods. (Col. 3, lines 12 – 16). The method in Garg '357 first initializes variables representing feasible marketing strategies then, based on an integrated marketing model, estimates demand for each brand by estimating consumer demand effects by marketing, and then optimizes to find which strategy maximizes profit for each brand. (Col. 3, lines 11 – 23).

        The instant invention uses a two-step modeling approach (utilizing two separate sets of models) including a demand group level sales model (that models aggregate sales over the constituent products) and a market share model that determines relative shares of products within a demand group. Thus, the final product level sales model is the product of demand group sales of a particular product and the market share of the product.

        In the instant invention, the market share model is the fraction of a demand group's total sales comprised by a particular product within the demand group. (Specification, page 68, lines 5-8). The instant market share model <u>does not predict a product's share of the external market, but rather</u> <u>the internal analysis of a product's share of its demand group's total sales within the user's store or</u> <u>chain.</u> Combined with the demand group sales model discussed above, this novel aspect of the instant invention allows one skilled in the art to calculate demand group demand as a function of

price and then use internal market share to calculate a product's demand from the demand group demand. (Specification, page 115, lines 1-3).

Neither Ouimet '893, nor Garg '357 teach nor suggest the <u>demand group sales model</u> nor the <u>internal market share model</u> disclosed by the instant invention. Hence, base Claim 3, and claims 4, 9 and 11, which are dependent upon Claim 3, are allowable over the cited art.

In sum, base claims 1 and 3 have been amended and are now believed to be allowable. Dependent claims 2, 4 and 6-11 which depend therefrom are also believed to be allowable as being dependent from their respective patentable parent claims 1 and 3 for at least the same reasons. Hence, Examiner's rejection of dependent Claims 2, 4 and 6-11 are rendered moot in view of the amendment to independent Claims 1 and 3. No new claims have been added.

Applicants believe that all pending claims 1 - 11 are now allowable over the cited art and are also in allowable form and respectfully request a Notice of Allowance for this application from the Examiner. Applicant has already petitioned for a one-month extension of time in the September 11, 2006 Amendment. However, the commissioner is authorized to charge any fees that may be due to our Deposit Account No. 50-2766 (Order No. DEM1P003), if necessary. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at telephone number 925-570-8198.

LAW OFFICES OF KANG S. LIM   Respectfully submitted,

PMB 436   /Kang S. Lim/
3494 Camino Tassajara Road
Danville, CA 94506
Voice: (925) 570 8198   Kang S. Lim
Facsimile: (925) 736 3974   Attorney for Applicant(s)
                                                 Reg. No. 37,491
CUSTOMER NO. 30688